

Amendments to the Specification:

Please amend the paragraph of specification at Page 2, beginning on line 1 to read as follows:

The panel members of the standing seam roof assembly are joined along lapped together side edges forming the standing seams. The panel members are secured to secondary structural members by either clips or through fasteners. The clips used to attach to the standing seam can be of two types: floating (one or two piece moveable); or fixed (one piece with no movement allowed between the panel and the supporting structure). Through fasteners penetrate the panels and attach the panels to underlying support structure to substantially lock the panels and support structure together so that differential movement is restricted. Roofs may be classified as shed roofs and low slope gasket roofs. Shed roofs are roofs that shed water because gravity pulls the water down and away from panel joints more effectively than wind or capillary action propel water through the joint. Shed roofs generally occur over slopes of three to twelve or greater. Low slope gasket roofs, on the other hand, provide roof joints that are made watertight by placing gasket material between the panel joints and securing the gasket material in place by, for example, encapsulating or exerting pressure on the gasket material. Generally, low slope gasket roofs have a ~~1/4~~ one to twelve ~~slope or greater or less slope.~~

Please amend the paragraph of specification at Page 15, beginning on line 7 to read as follows:

It will be further noted that FIG. 5 shows the interlocked adjacent roof panels 24 in an unseamed condition; that is, mechanical seaming may be used to provide the final relationship between the male sidelap portion 36 and the female sidelap portion 34. In other words, to form a standing seam by pressing said leg 40 with hook 42 into mating contact with the tang 44, and folding the mated said leg 40 with hook 42 and tang 44 into adjacency with a fifth leg portion 68 of the male sidelap portion 36 of FIG. 6. An attachment clip can also be gripped between the male sidelap portion 36 and the female

sidelap portion 34 for attachment to the underlying roof structure as will be discussed below.

Please amend the paragraph of the specification at Page 15, beginning on line 13 to read as follows:

Turning to FIG. 6, shown therein is the standing seam 25A, identical to the standing seam ~~25 of FIG. 5~~, described hereinabove, except that a roof clip 46 is sandwiched between the female sidelap portion 34 and the male sidelap portion 36, after which the standing seam 25A has been field formed by a seaming operation. The female sidelap portion 34 has a first leg portion 48, a first radiused portion 50, a second leg portion 52, a second radiused portion 54 and a third leg portion 56 which together form a first female cavity 58 and a second female cavity 59 (also sometimes herein referred to as the first and second male insertion cavities), for receiving the male sidelap portion 36. A retaining groove 60 is disposed at a distal end of the third leg portion 56, and an extended leg portion 62 extends from the third leg portion 56 to the retaining groove 60.

Please amend the paragraph of the specification at Page 16, beginning on line 1 to read as follows:

The male sidelap portion 36 has a fourth leg portion 64, a third radiused portion 66, a the fifth leg portion 68, a fourth radiused portion 70 and a sixth leg portion 72, also referred to as the tang member 72, disposed in the female cavity 58. The radiused portion 70 is disposed in the second female cavity 59, and a distal end of the tang member 72 is disposed in the retaining groove 60.

Please amend the paragraph of the specification at Page 18, beginning on line 6 to read as follows:

FIG. 9 shows another embodiment with a standing seam 25C wherein the standing seam 25B of FIG. 8 has been rotated or formed downwardly in the seaming operation to create an acute angle with respect to first leg portion 48C. This seam provides a tighter, stronger and more watertight seam because the over-bending requires a longer arc length

for first radiused portion 50C which tends to draw retaining groove 60C more tightly against tang member 72C, as well as drawing radius portion 54C more tightly against radius portion 74C; that is more tightly than the retention groove 60B of FIG. 8 is drawn against tang member 72B of FIG. 8, and more tightly than radius portion 54 of FIG. 6 is drawn against radius portion 74 of FIG. 6. Drawing the retention groove 60C more tightly against tang member 72C, and radius portion 54C more tightly against radius portion 74C promotes a sidelap shear capacity for the standing seam 25C through increased frictional forces developed between the interacting members.

FIG. 9 further shows the roof clip 46C lies in pressing contact adjacent a first side of the tang member 72C, encloses the distal end of the tang member 72C, ~~loops~~ loops back on and pressingly engages a second side the tang member 72C to enclose substantially all of the tang member 72C. Whereas, the roof clip 46 of FIG. 6 pressingly engages only one side of the tang member 72 of FIG. 6. By enclosing substantially all of the tang member 72C in pressing engagement with the roof ~~elamp clip~~ clip 46C, ~~area of surface contact the~~ surface area contact and frictional forces between the roof clip 46C and the tang member 72C is increased, and the sidelap shear capacity, imparted in the standing seam 25C through downwardly forming the standing seam 25B of FIG. 8, is increased through the resulting increased frictional force. That is, by enclosing a substantial part of the tang member 72C within the roof clip 46C, the sidelap shear capacity of the standing seam 25C is increased relative to a sidelap shear capacity attainable by downwardly forming the standing seam 25A of FIG. 6 to create an acute angle with respect to the first leg portion 48 of FIG. 6.

Please amend the paragraph of specification at Page 29, beginning on line 14 to read as follows:

One embodiment of the present invention to increase the diaphragm strength of a standing seam roof is to attach a backer plate on the upstanding portions of the sidelap portions, as illustrated in FIGS. 40 and 41. Shown therein is a support plate 214 engaging the female sidelap portion 34 and a support plate 216 engaging the male sidelap portion 36 of the standing seam 25 of interlocking adjacent roof panels 24 supported on the secondary structural system 20. One or more fasteners 218 (FIG. 41) connect the support plates 214,

216 to compressingly sandwich the sidelap portions there between. The tightened fasteners 218 increase both the frictional and ~~both~~ shear resistance between the sidelap portions 34, 36 to prevent sliding movement there between.

Please amend the paragraph of specification at Page 30, beginning on line 22 to read as follows:

FIG. 44 shows yet another way of increasing the diaphragm strength of a standing seam 25 by using serrated plates 226 (see also clip 46D in FIG. 10; and clip 46D of FIG. 19A) at intervals along the seam. Each serrated plate 226 (or clip 46D) is placed between the male and female sidelap portions and optionally seamed with a seamer such as 156 of FIG. 31. Each plate 226 has plurality of protruding teeth 228 that engage both the male and female sidelap portions to grippingly retain these members so as to prevent sliding movement there between. The serrated plate 226 may be used at a clip or at points between clips.

Please amend the paragraph of specification at Page 31, beginning on line 14 to read as follows:

The amount of deflection illustrated by the uplift forces in FIG. 45 is dramatic and certainly beyond the elastic limit of the panels. Even so, the standing seam integrity is maintained so that the adjacent panel seams do not unfurl or unzip. It will be noted that the radiused portion 82 of the roof clip 46B is lockingly engaged with the tang member 72B so that the forces 234 and 232 will not separate the roof clip 46B from the male sidelap portion 36B. It will be further noted that the female sidelap portion 36B is lockingly engaged with the ~~female~~ male sidelap portion 34B so that the forces 230 and 232 will not separate the sidelap portions.